

**Notice of Allowability**

Application No.

10/630,573

Examiner

Diana B. Johannsen

Applicant(s)

CUCUZZA ET AL.

Art Unit

1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment of 14 June 2007; the interview of 29 August 2007.
2. ☒ The allowed claim(s) is/are 1-5.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 1006
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date part of 20070829.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### **EXAMINER'S AMENDMENT**

1. This action is responsive to the amendment filed June 14, 2007 and to the interview concluding August 29, 2007. In the amendment of June 14, 2007, claims 1-4 were amended and claim 5 was added.

Claims 2-3 and 5 are now amended by the examiner's amendment set forth below, and claims 1-5 are now allowed.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph Ricigliano on August 29, 2007.

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**3. Amend the claims as follows:**

Amend claim 2 as follows:

2. A method of detecting the presence of *Acidovorax avenae* subsp. *citrulli* in a test sample, the method comprising the steps of:
- (a) providing DNA from a test sample suspected of containing DNA of *Acidovorax avenae* subsp. *citrulli* or from a test sample of bacterial cells or microorganisms suspected of containing DNA of *Acidovorax avenae* subsp. *citrulli*;
  - (b) amplifying a target sequence of the DNA from the test sample using a set of primers including a first primer comprising 5'-CGCGCCGACCGAGACCTG-3' (SEQ. ID NO: 1) and a second primer comprising 5'-GGGGCACGCCAACATCCT-3' (SEQ. ID NO: 2) under amplification conditions; and
  - (c) detecting the presence of an amplification product of the target sequence of DNA produced in step (b) as an indication of the presence of *Acidovorax avenae* subsp. *citrulli* in the test sample.

Amend claim 3 as follows:

3. A method of evaluating or monitoring the efficacy of a treatment utilized to eliminate *Acidovorax avenae* subsp. *citrulli* from a seed lot, the method comprising the steps of:
- (a) providing a first test sample from a seed lot suspected of containing DNA of *Acidovorax avenae* subsp. *citrulli*;
  - (b) providing DNA from said first test sample or from cells or microorganisms from the first test sample suspected of containing *Acidovorax avenae* subsp. *citrulli*;

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(c) amplifying a target sequence of the DNA of step (b) using a set of primers including a first primer comprising 5'-CGCGCCGACCGAGACCTG-3' (SEQ. ID NO: 1) and a second primer comprising 5'-GGGGCACGCCAACATCCT-3' (SEQ. ID NO: 2) under amplification conditions;

(d) detecting the presence of first amplification products of the target sequence produced in step (c) as an indication of the presence of *Acidovorax avenae* subsp. *citrulli* in the first test sample;

(e) treating the seed lot from which the first test sample was obtained or a portion thereof with a composition to reduce or eradicate *Acidovorax avenae* subsp. *citrulli*, thereby producing a treated seed lot;

(f) providing a second test sample from the treated seed lot or treated portion thereof;

(g) providing DNA from said second test sample or from cells or microorganisms from the second test sample;

(h) amplifying a target ~~DNA using primers comprising 5'-CGCGCCGACCGAGACCTG-3' (SEQ. ID NO: 1) and 5'-GGGGCACGCCAACATCCT-3' (SEQ. ID NO: 2)~~ sequence in the DNA of step (g) using a set of primers including a first primer comprising 5'-CGCGCCGACCGAGACCTG-3' (SEQ. ID NO: 1) and a second primer comprising 5'-GGGGCACGCCAACATCCT-3' (SEQ. ID NO: 2) under amplification conditions;

(i) detecting the presence of ~~an amplification product of the target DNA~~ second amplification products of the target sequence produced in step (h) as an indication of the presence of *Acidovorax avenae* subsp. *citrulli* in the second test sample; and

(j) comparing the amount of [[a]] second amplification products or absence of said second amplification products in the second test sample to the amount of said first amplification products detected in the first test sample in step (d) as an indication of whether said treating step has reduced or eradicated *Acidovorax avenae* subsp. *citrulli* in the seed lot.

Amend claim 5 as follows:

5. A method of treating a seed lot to eliminate reduce or eradicate *Acidovorax avenae* subsp. *citrulli*, the method comprising the steps of:

(a) providing a first test sample from a seed lot suspected of containing DNA of *Acidovorax avenae* subsp. *citrulli*;

(b) providing DNA from said first test sample or from cells or microorganisms from the first test sample suspected of containing *Acidovorax avenae* subsp. *citrulli*;

(c) amplifying a target sequence of the DNA of step (b) using a set of primers including a first primer comprising 5'-CGCGCCGACCGAGACCTG-3' (SEQ. ID NO: 1) and a second primer comprising 5'-GGGGCACGCCAACATCCT-3' (SEQ. ID NO: 2) under amplification conditions;

(d) detecting the presence of amplification products of the target sequence of DNA produced in step (c) as an indication of the presence of *Acidovorax avenae* subsp. *citrulli* in the first test sample; and

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(e) treating the seed lot from which the first test sample was obtained or a portion thereof with a composition to reduce or eradicate *Acidovorax avenae* subsp. *citrulli*, thereby producing a treated seed lot.

***Summary of the interview concluding August 29, 2007***

4. On August 27, 2007, the examiner contacted applicant's representative and proposed minor amendments to claims 2-3 and 5 intended to further clarify the relationships between method steps, and to clarify the objective and final method step of the method of new claim 5, and thereby place the application in condition for allowance. On August 29, 2007, applicant's representative contacted the examiner and authorized the proposed amendments. Accordingly, claims 1-5 are now allowed.

5. **The following is an examiner's statement of reasons for allowance.**

The prior art does not anticipate or render obvious the primer set required by all of the allowed claims. It is noted that the specification exemplifies the successful use of the primer set with multiple sample types (see examples 3-16).

It is also noted that basis for new claim 5 may found at, e.g., page 15 of the specification. The specification also discloses at this location that compositions useful in treating seed lot contamination with of *A. avenae* subspecies *citrulli* were well known at the time the invention was made.

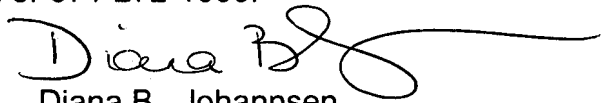
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diana B. Johannsen whose telephone number is 571/272-0744. The examiner can normally be reached on Monday and Thursday, 7:30 am-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached at 571/272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Diana B. Johannsen  
Primary Examiner  
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